

What is claimed is:

1. A printed circuit board comprising at least one edge connector comprising copper coated with conductive ink comprising a binder, graphite powder, carbon black, and silver flakes, wherein the silver flakes have an average grind size not greater than about 10 μ m.

2. A printed circuit board according to claim 1, wherein the edge connector is a PCI bus.

3. A printed circuit board according to claim 1, wherein the edge connector is an ISA bus.

4. A printed circuit board according to claim 1, wherein the edge connector is an AMR bus.

5. A printed circuit board according to claim 2, wherein the binder is a cured epoxy resin comprising phenolic monomers.

6. A printed circuit board according to claim 3, wherein the binder is a cured epoxy resin comprising phenolic monomers.

7. A printed circuit board according to claim 1, wherein the conductive ink coated on the edge connector has a sheet resistivity of $0.25 \Omega/\text{square}/15\mu\text{m}$.

5 8. A printed circuit board according to claim 7, wherein the edge connector is an ISA bus.

10 9. A printed circuit board according to claim 8, wherein the binder is a cured resin comprising phenolic monomers.

Sub A > 10. A method of manufacturing edge connectors on a printed circuit board comprising applying a conductive ink provides a sheet resistivity of about 0.1 to $0.5 \Omega/\text{sq}/15\mu\text{m}$ over a copper conductor terminating at an edge of the circuit board.

11. A method according to claim 10, wherein the sheet resistivity is about 0.2 to $0.3 \Omega/\text{sq}/15\mu\text{m}$.

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12. A method according to claim 10, wherein the sheet resistivity is about $0.25 \Omega/\text{sq}/15\mu\text{m}$.

13. A method according to claim 12, wherein the ink comprises an epoxy resin containing phenolic monomers, graphite powder, carbon black, and silver flakes.

5 14. A method according to claim 13, where the ink further comprises methanol and carbitol.

15. A method according to claim 14, wherein the ink comprises

- 10 (a) from about 20 to 40% of an epoxy resin comprising phenolic monomers;
- (b) from about 3 to 10% of carbon black;
- (c) from about 8 to 20% of graphite powder;
- 15 (d) from about 10 to 50% of silver flakes having an average grind size not greater than about 10 μ m.

16. A method according to claim 14, where the ink comprises

- 20 (a) from about 20 to 40% of an epoxy resin comprising phenolic monomers;
- (b) from about 3 to 10% of carbon black;
- (c) from about 8 to 20% of graphite powder;
- (d) from about 10 to 50% of the silver flakes having an average grind size not greater than about 10 μ m;
- 25 (e) up to about 30% thinner and
- (f) up to about 8% methanol.

17. In an edge connector formed by a copper conductor terminating at the edge of a printed circuit board, the improvement comprising applying over the copper⁰ conductor
5 conductive ink comprising silver flakes where the silver flakes are in an amount sufficient to provide a sheet resistivity of from about 0.1 Ω /sq/15 μ m to 0.5 Ω /sq/15 μ m, the silver flakes having an average grind size not greater than about 10 μ m.

18. The edge connector of claim 17 wherein the edge connector has a contact resistance of about $50 \times 10^{-3} \Omega$.

19. The edge connector of claim 17 wherein the edge connector has a contact resistance of about $35 \times 10^{-3} \Omega$.

20. The edge connector of claim 17 wherein the edge connector has a contact resistance of about $30 \times 10^{-3} \Omega$.

21. The edge connector of claim 17, wherein the conductive ink comprises thermosetting resin containing graphite powder, carbon black, and silver flakes.

22. The method of claim 10 wherein the conductive ink
25 provides a contact resistance of about $50 \times 10^{-3} \Omega$.

23. The method of claim 11 wherein the edge connector has a contact resistance of about $35 \times 10^{-3} \Omega$.

5 24. The method of claim 12 wherein the conductive ink provides a contact resistance of about $30 \times 10^{-3} \Omega$.

25. A printed circuit board according to claim 1, wherein the binder is a cured thermosetting resin.

26. The edge connector of claim 17, wherein the silver flakes have an average grind size of about $10 \mu\text{m}$.

27. The edge connector of claim 27, wherein the amount of silver flakes is from about 50 to 75% by volume of the ink.